

C L A I M S

1. (Twice Amended) A crystalline substrate based device comprising:

a crystalline substrate having formed thereon a microstructure; and

at least one transparent chip scale packaging layer which is sealed over said microstructure by means of an adhesive and defines therewith at least one gap between said crystalline substrate and said at least one chip scale packaging layer,

wherein said microstructure receives light via said at least one transparent packaging layer.

2. A crystalline substrate based device according to claim 1 and wherein said at least one packaging layer is sealed onto said crystalline substrate using an adhesive.

3. A crystalline substrate based device according to claim 2 and wherein said adhesive comprises epoxy.

4. A crystalline substrate based device according to claim 1 and wherein said crystalline substrate comprises silicon.

5. (Cancelled)

6. A crystalline substrate based device according to claim 1 and wherein said at least one gap comprises a plurality of gaps.

7. A crystalline substrate based device according to claim 1 and wherein said microstructure comprises a micromechanical structure.

8. A crystalline substrate based device according to claim 1 and wherein said microstructure comprises a microelectronic structure.

~~8.~~
A crystalline substrate based device according to claim 1 and wherein said microstructure comprises a optoelectronic structure.

~~9.~~
~~10.~~ A chip scale packaged crystalline substrate comprising: a substrate having formed thereon a microstructure; and at least one chip scale package which is sealed over said microstructure and defines therewith at least one gap, and wherein said at least one package is at least partially transparent.

~~10.~~
~~11.~~ A chip scale packaged crystalline substrate according to claim ~~10~~ and wherein said at least one package is sealed onto said substrate using an adhesive.

~~12.~~
~~13.~~ A chip scale packaged crystalline substrate based device according to claim ~~12~~ and wherein said adhesive comprises epoxy.

~~14.~~
~~15.~~ A chip scale packaged crystalline substrate according to claim ~~10~~ and wherein said substrate comprises silicon.

~~16.~~
~~17.~~ A chip scale packaged crystalline substrate according to claim ~~10~~ and wherein said substrate comprises lithium niobate.

~~18.~~
15. (Cancelled)]

~~19.~~
~~16.~~ A chip scale packaged crystalline substrate according to claim ~~10~~ and wherein said at least one gap comprises a plurality of gaps.

~~20.~~
~~17.~~ A chip scale packaged crystalline substrate according to claim ~~10~~ and wherein said microstructure comprises a micromechanical structure.

~~21.~~ 18. A chip scale packaged crystalline substrate according to claim ~~10~~¹⁴ and wherein said microstructure comprises a micro-electronic structure.

~~9.~~ 19. A chip scale packaged crystalline substrate according to claim 1 and wherein said microstructure comprises an optoelectronic structure.

~~D~~ 20. (Twice Amended) A method of producing a crystalline substrate based device comprising:

~~providing a microstructure on a substrate; and adhesively sealing at least one chip scale packaging layer over said microstructure and at least partially spaced therefrom, thereby to define a gap between said microstructure and said at least one chip scale packaging layer,~~
~~wherein said at least one chip scale packaging layer is transparent.~~

~~C~~ 21. A method of producing a crystalline substrate based device according to claim 20 and wherein said at least one packaging layer is sealed onto said crystalline substrate using an adhesive.

22. A method of producing a crystalline substrate based device according to claim 21 and wherein said adhesive comprises Epoxy.

23. A method of producing a crystalline substrate based device according to claim 20 and wherein said crystalline substrate comprises silicon.

24. A method of producing a crystalline substrate based device according to claim 20 and wherein said crystalline substrate comprises lithium niobate.

[25. (Cancelled)]

D cont.

26. A method of producing a crystalline substrate based device according to claim 20 and wherein said at least one gap comprises a plurality of gaps.

27. A method of producing a crystalline substrate based device according to claim 20 and wherein said microstructure comprises a micromechanical structure.

28. A method of producing a crystalline substrate based device according to claim 20 and wherein said microstructure comprises a microelectronic structure.

29. A method of producing a crystalline substrate based device according to claim 20 and wherein said microstructure comprises a optoelectronic structure.

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30. A crystalline substrate based device according to claim 1 and wherein said crystalline substrate comprises lithium tantalate.

31. A crystalline substrate based device according to claim 1 and wherein said microstructure comprises a surface acoustic wave device.

32. A device according to claim 1 and wherein said microstructure comprises a surface acoustic wave device.

D cont.

33. A method of producing a crystalline substrate based device according to claim 20 and wherein said crystalline substrate comprises lithium tantalate.

34. A method of producing a crystalline substrate based device according to claim 20 and wherein said microstructure comprises a surface acoustic wave device.

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35. A crystalline substrate based device according to claim 1 and wherein said crystalline substrate comprises quartz.

Dcont.

36. A method of producing a crystalline substrate based device according to claim 20 and wherein said crystalline substrate comprises quartz.

23/ 37. A chip scale packaged crystalline substrate based device comprising:

a crystalline substrate having formed thereon a microstructure; and

at least one chip scale package comprising at least one transparent packaging layer which is sealed over said microstructure by means of an adhesive and defines therewith at least one gap between said crystalline substrate and said at least one packaging layer,

wherein said microstructure receives light via said at least one transparent packaging layer.

cont'd

23
38. (Amended) A crystalline substrate based device comprising:

a crystalline substrate having formed thereon a microstructure; and

at least one chip scale packaging layer which is sealed over said microstructure and defines therewith at least one gap between said crystalline substrate and said at least one packaging layer, the crystalline substrate, microstructure and chip scale packaging layer forming a chip scale package,

the chip scale package having a multiplicity of electrical contacts plated along edge surfaces thereof.

24
39. A device according to claim 38 wherein at least one gap is located over said crystalline substrate and under said at least one packaging layer.

25
40. A device according to claim 38 wherein said packaging

cont'd layer is sealed over said microstructure by means of an adhesive.

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